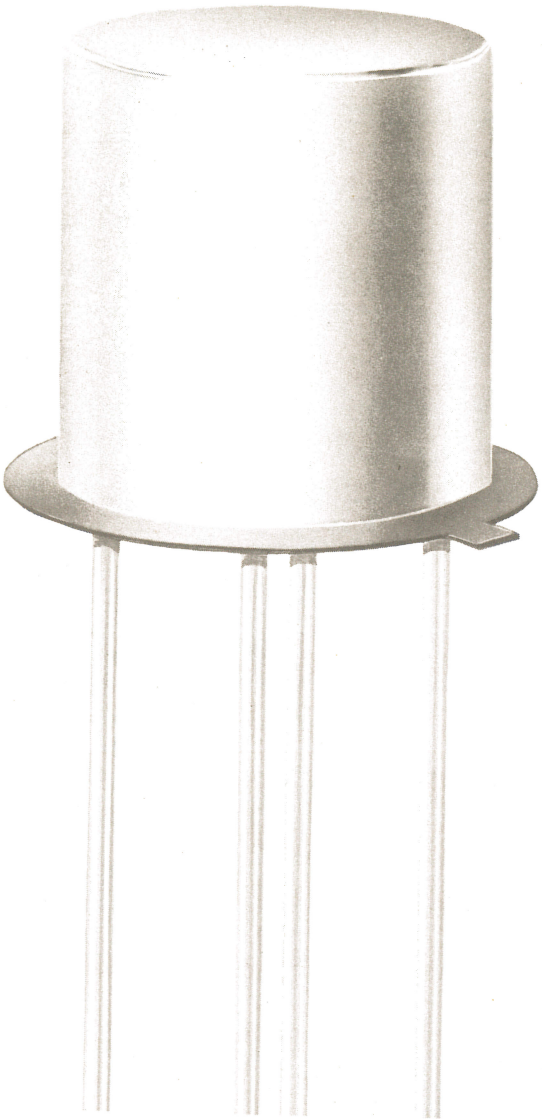
LOW-NOISE COMMUNICATION-TYPE TRANSISTORS



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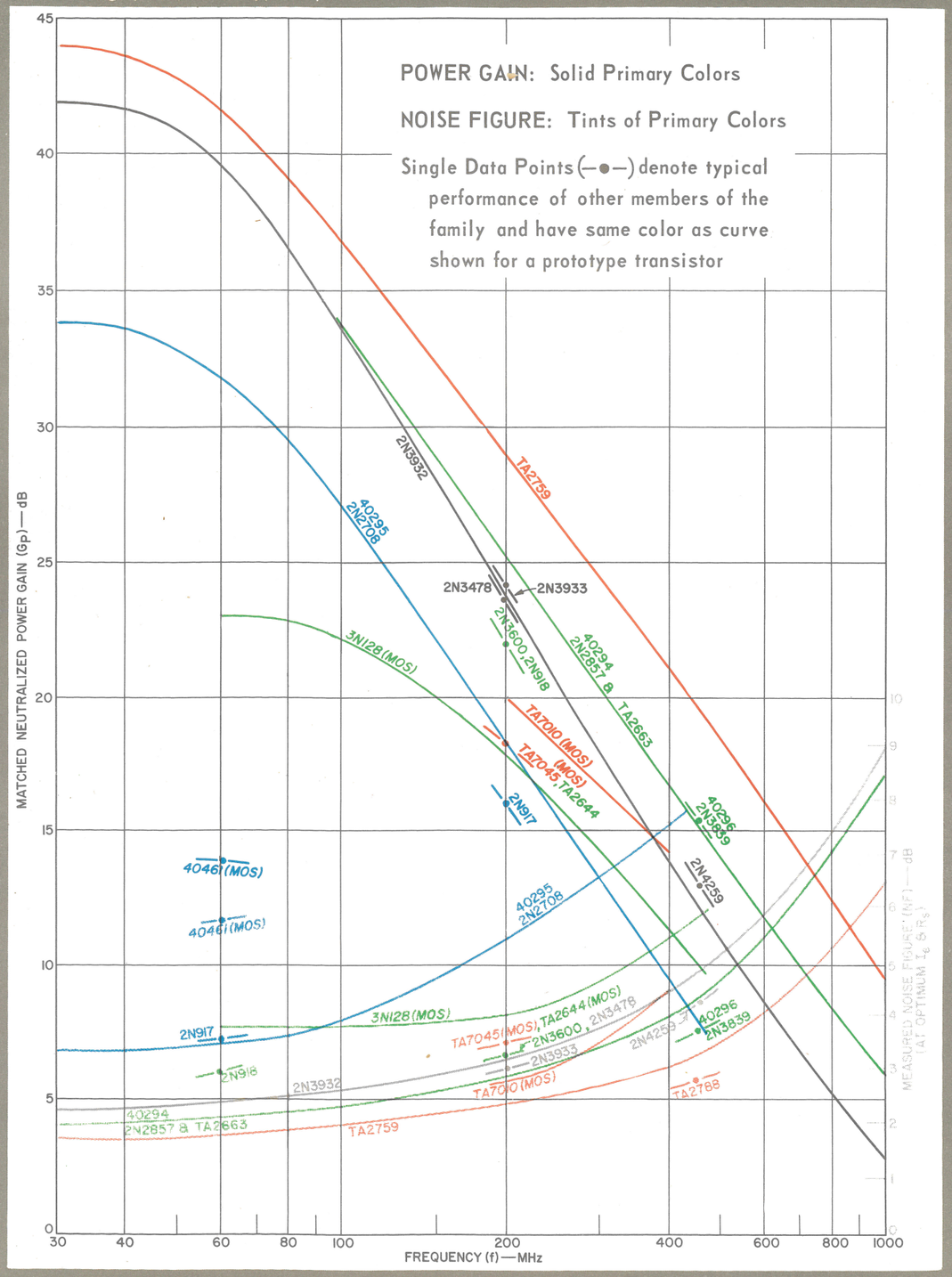
QUICK-SELECTION CHART

Typical Performance Characteristics of RCA Low-Noise Communications-Type Transistors

This graph is intended to permit quick selection of the most suitable RCA low-noise communications-type transistor for a specific application. The Power Gain and Noise Figure curves shown in the graph represent typical performance over the frequency range from 30 MHz to 1000 MHz. Each curve is labeled with the type designation of the prototype transistor which will deliver the typical performance indicated by the curve.



LOW-NOISE COMMUNICATION-TYPE TRANSISTORS

CHARACTERISTICS CHART

RCA BIPOLAR TYPES	Max. Measured Noise Figure NF dB at f = MHz 60	200	450	Min. Matched Neutralized Power Gain G_{pe} dB at f = MHz 200	450	Min. Gain-Band-width Product f_T MHz	Max. Collector-to-Base Feedback Capacitance C_{cb} pF	Min. Power Output P_o mW at f = MHz ≥ 500	Min. Collector-to-Emitter Breakdown Voltage $V_{(BR)CEO}$ V	Max. Storage Temperature T_{stg} °C	JEDEC Package See actual size photographs below
TA2788 ϕ	—	—	3	—	15	1500	0.65	—	15	+200	TO-72
TA2759 ϕ	—	—	3.5	—	15	1500	0.65	—	15	+200	TO-72
2N3839	—	—	3.9	—	12.5	1000	1.0	30	15	+200	TO-72
40296	—	—	3.9	—	12.5	1000	1.0	30	15	+200	TO-72
2N2857	—	—	5	—	12.5	1000	1.0	30	15	+200	TO-72
40294	—	—	5	—	12.5	1000	1.0	30	15	+200	TO-72
TA2663 ϕ	—	—	5	—	12.5	1000	1.0	30	15	+200	4-Lead TO-46
TX 2N2857	—	—	5	—	12.5	1000	1.0	30	15	+200	TO-72
JAN 2N2857	—	—	5	—	12.5	1000	1.0	30	15	+200	TO-72
2N3600	—	4.5*	—	17	—	850	1.0	20	15	+200	TO-72
JAN 2N918	6	—	—	15	—	600	1.7	30	15	+200	TO-72
2N918	6	—	—	15	—	600	1.7	30	15	+200	TO-72
2N2708	—	7.5*	—	12	—	700	1.0	—	20	+200	TO-72
JAN 2N2708	—	7.5*	—	12	—	700	1.0	—	20	+200	TO-72
40295	—	7.5*	—	12	—	700	1.0	—	20	+200	TO-72
2N917	6	—	—	9	—	500	1.7	10	15	+200	TO-72
2N4259	–	–	5	–	11.5	750	0.55	–	30	+200	TO-104
2N3933	3	4	–	14●	–	750	0.55	–	30	+200	TO-104
2N3932	–	4.5	–	11.5●	–	750	0.55	–	20	+200	TO-104
2N3478	–	4.5	–	11.5●	–	750	0.7	–	15	+200	TO-104

RCA MOS TYPES	Max. Measured Noise Figure NF dB at f = MHz 60	200	400	Min. Matched Neutralized Power Gain G_{pe} dB at f = MHz 200	400	Max. Gate Leakage Current I_{GSS} nA	Min. Forward Transcon-ductance g_{fs} μmho	Max. Small-Signal Short-Circuit Reverse Transfer Capacitance C_{rss} pF	Max. Pinch-Off Voltage $V_{G(off)}$ V	Min. Drain-to-Source Breakdown Voltage V_{DS} V	Max. Drain-to-Source Resistance $R_{DS(on)}$ Ω	Max. Cutoff Current (Drain-to-Source) $I_{D(off)}$ nA	Max. Storage Temperature T_{stg} °C	JEDEC Package
TA7010 ϕ	—	—	6	—	12	100	7000	0.025	−8	20	—	—	+150	TO-72
TA7045 ϕ	—	4.5	—	16	—	100	6000	0.03	−8	20	—	—	+150	TO-72
TA2644 ϕ	—	4.5	—	16	—	100	6000	0.03	−8	20	—	—	+150	TO-104
3N128	—	5.0	—	14.5	—	0.05	5000	0.20	−8	20	—	—	+125	TO-104
40461	—	—	—	—	—	0.01	1600	1.2	−6	25	—	—	+150	TO-72
40460 ▲	—	—	—	—	—	0.01	—	1.2	−6	—	300	5	+150	TO-72

ϕ Developmental RCA Type.
* Device noise figure.
● Unneutralized.
▲ For chopper applications.

TO-72 TO-46 4-Lead TO-104

actual size photographs

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